

THREE NEW SPECIES OF THE GENUS *QUEDIUS* (COLEOPTERA, STAPHYLINIDAE, STAPHYLININAE) FROM CHINA

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Abstract Three new species of the genus *Quedius* Stephens, *Quedius* (*Microsaurus*) *yeleensis*, *Q.* (*M.*) *guoi*, and *Q.* (*M.*) *liangshanensis* from Mianning, Sichuan, China are described and illustrated. New distributional data on *Q.* (*M.*) *myau*, *Q.* (*M.*) *ephialtes* and *Q.* (*M.*) *nerius* are involved.

Key words Staphylinidae, *Quedius*, new species, new distribution, China.

The paper deals with six species of the genus *Quedius*, them belonging to three species-groups of the subgenus *Microsaurus* of the genus, viz., *Quedius* (*Microsaurus*) *euryalus*, *Q.* (*M.*) *mukuensis*, and *Q.* (*M.*) *szechuanus* Groups.

The *Quedius* (*Microsaurus*) *euryalus* group now contains nineteen species, all from the mainland of China (Smetana: 1997a, 1997b, 1999a, 1999b, 2001a, 2001b), one species occurs in Yunnan, one in Gansu, three in Shaanxi, and fourteen in Sichuan. A new species of the group is described and illustrated under the name of *Quedius* (*Microsaurus*) *yeleensis* from Yele Nature Reserve, Mianning County, Sichuan, China. Additional distributions of *Q.* (*M.*) *myau* and *Q.* (*M.*) *ephialtes* are recorded.

The *Q.* (*M.*) *mukuensis* group, so far, six species are known, all occur in western China (Smetana: 1995, 1997b, 2001a), one species in Gansu, one in Yunnan, four in Sichuan, two of which also in Gansu and Yunnan. A new species of the group, *Quedius* (*Microsaurus*) *guoi* is described and illustrated, it is also collected from Yele Nature Reserve, Mianning County, Sichuan, China. Additional distribution of *Q.* (*M.*) *nerius* is recorded.

The *Q.* (*M.*) *szechuanus* group composed of four species at present, also all from the mainland of China (Smetana: 1996, 1997b, 1999a, 2001b), one species from in Yunnan, one in Shaanxi, and two in Sichuan. A new species of the group is described and illustrated under the name of *Quedius* (*Microsaurus*) *liangshanensis* from Mianning County, Liangshan

area, Sichuan Province, China.

The type specimens are deposited in the Life Science College, China West Normal University, Nanchong, Sichuan, China.

The *Euryalus* group

Quedius (*Microsaurus*) *yeleensis* **sp. nov.**

(Figs. 1-5, 16)

Type material. Holotype male, China, Sichuan, Limekiln, Yele Nature Reserve, Mianning County (28° 50' - 29° N, 101° 59' - 102° 16' E; 2900-3100 m), May 8-20, 1995, collected by GUO Jian.

Diagnosis. The species is closest to *Q.* (*M.*) *erythras* Smetana from Gansu, but can be recognized by the following Points: abdominal sternite 8 of male with four long setae on each side; paramere of aedeagus contracted in the middle, widely and deeply emarginate at apex, two sensory tubercle group on the underside near apex each composed of three to five small black tubercles.

Description. Male. Body reddish brown to brownish black, head black, pronotum and elytra dark reddish brown, abdomen brownish black; antennae, maxillary and labial palpi, legs, and apical two segments of abdomen reddish brown; pubescence yellow to brownish yellow.

Body length: 7.5 mm.

Head rounded, slightly wider than long (ratio 1.16), distinctly narrowed posteriad behind eyes, posterior angles rounded; eyes very large and convex; temples shorter than length of eyes (ratio 0.46); clypeus impunctate, with two small and shallow round

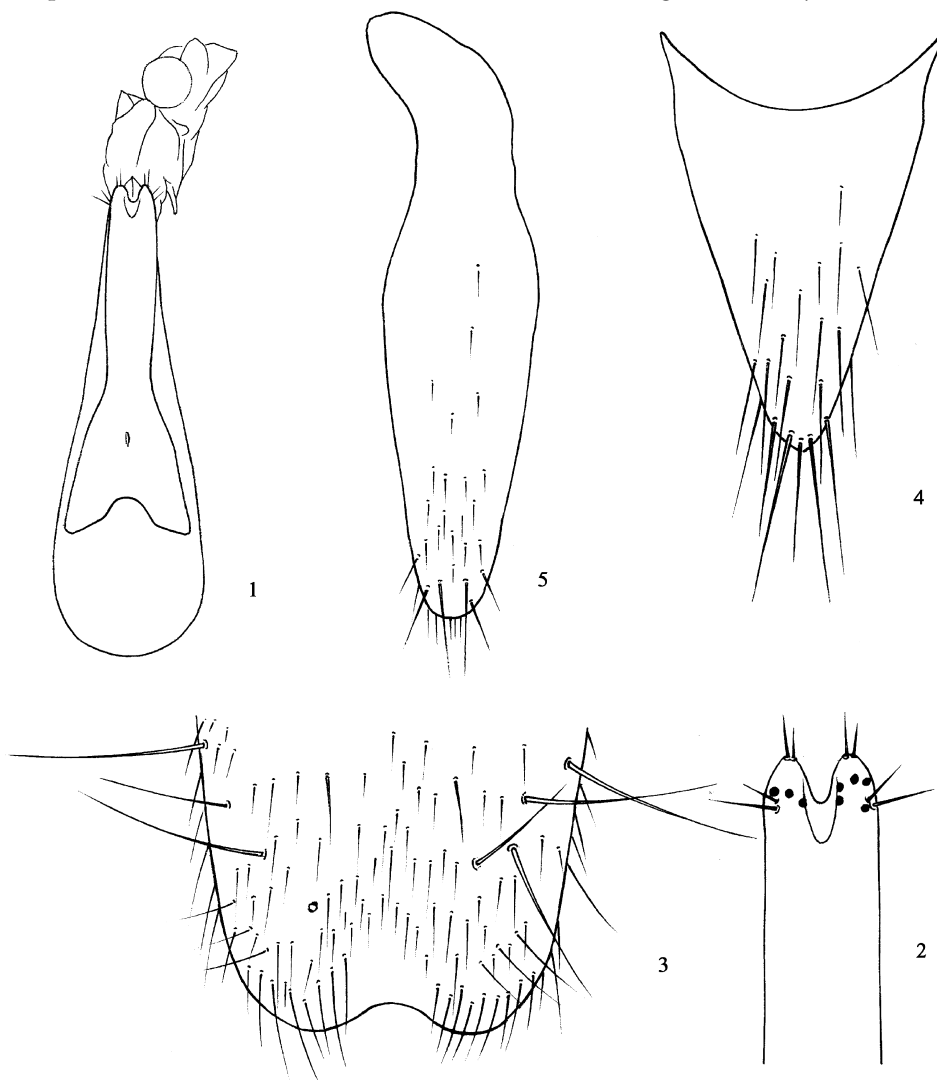
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impressions; anterior frontal puncture almost against inner margin of eyes, posterior frontal puncture fairly close to posterior inner margin of eyes, separated from it by distance smaller than puncture, two setiferous punctures between it and posterior margin of head, temple with a few punctures different in size; surface

of head with microsculpture consisting of very fine and dense transverse waves and mingled with sparse micropunctulation. Antenna short, not reaching posterior margin of pronotum, segments 1-3 elongate and dilated apicad, following segments longer than wide, last segment bluntly acute at apical portion.



Figs 1-5. *Quedius (Microsaurus) yeleansis* sp. nov. (male). 1. Aedeagus, ventral view. 2. Apical part of underside of paramere. 3. Sternite 8. 4. Tergite 10. 5. Sternite 9.

Pronotum wider than head (ratio 1.25), slightly wider than long (ratio 1.1), anterior angles angulate, posterior rounded, lateral portions not flattened, finely bordered; dorsal and sublateral rows each with three punctures, posterior puncture of sublateral rows situated behind level of large lateral puncture, microsculpture similar to that on head, micropunctulation nearly indistinct. Scutellum with fine and dense microsculpture consists of transverse striae, impunctate.

Elytra subquadrate, slightly longer (ratio 1.13) and wider (ratio 1.17) than pronotum, feebly broader

than long (ratio 1.1), vaguely widened posteriad; punctuation moderately coarse and dense, somewhat superficial, without microsculpture between punctures.

Legs with segments 1-4 of protarsus strongly widened.

Abdomen with tergite 7 bearing whitish apical fringe, punctuation of abdominal tergites similar to that on elytra, microsculpture of transverse striae exceedingly fine and dense; sternite 8 with four long setae on each side, with moderately wide and deep arcuate emargination at middle of posterior margin, small triangular area before emargination being

smooth; tergite 10 nearly triangular, apex narrowly arcuate, with five apical setae and some other setae different in length; sternite 9 widely arcuate at apical margin, with four subapical setae and some other setae.

Aedeagus with median lobe about as long as paramere, almost parallel-sided at apical fourth, with small tooth on face adjacent to paramere. Paramere contracted in the middle, nearly parallel-sided at apical half, apex with wide and deep medio-apical emargination, four setae at each side of emargination; underside of paramere with three or five black sensory tubercles on each side of emargination.

Female: unknown.

Habitat and distribution. Habitat of the species is not clear now; it is known only from the type locality of Sichuan, China.

Etymology. The specific epithet is referred to the type locality.

Quedius (*Microsaurus*) *ephialtes* **Smetana**

Smetana, 1997: 60; 1999: 216; 2001: 184.

Specimens examined. 10 ♂♂, China, Sichuan, Limekiln, Yele Nature Reserve, Mianming, ($28^{\circ}50'-29^{\circ}N$, $101^{\circ}59'-102^{\circ}16'E$; 2 900-3 100 m), 8-20 May 1995, collected by GUO Jian.

Distribution. China, Sichuan, Gongga Shan, E. Kangding Ganzhi.

Quedius (*Microsaurus*) *myau* **Smetana**

Smetana, 1999: 535; 2001: 183.

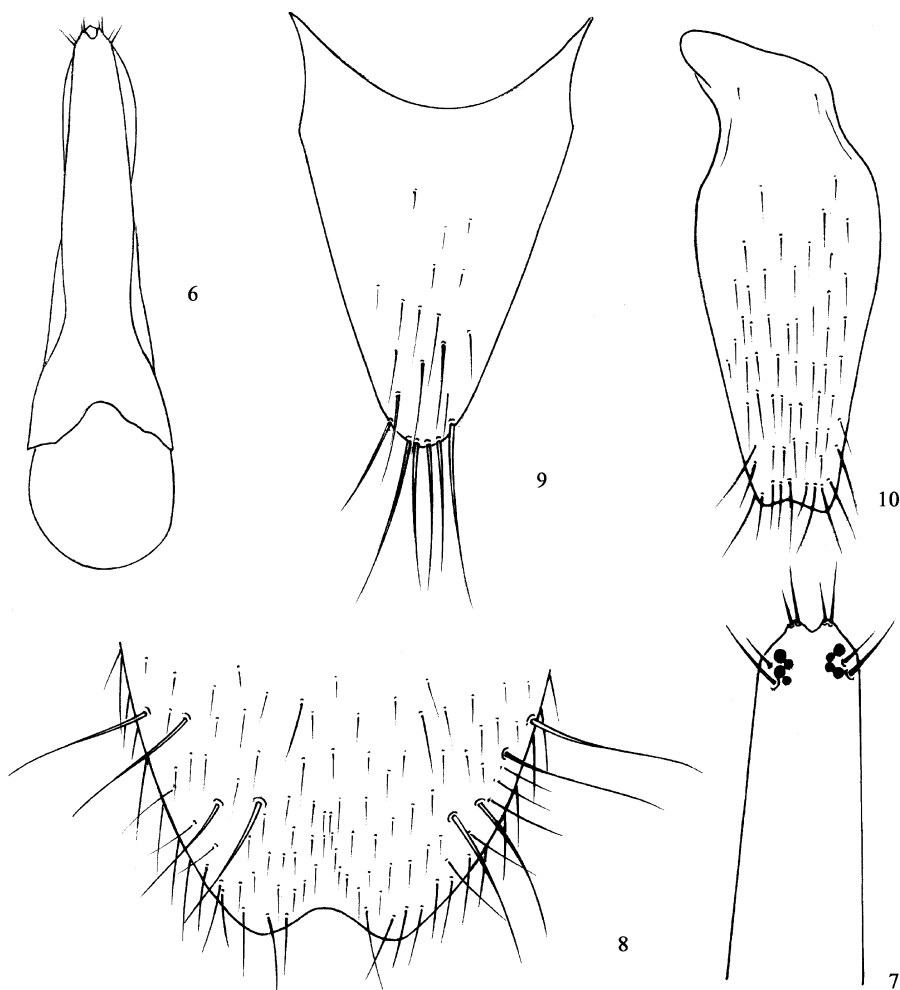
Specimens examined. 4 ♂♂, China, Sichuan, Limekiln, Yele Nature Reserve, Mianming, ($28^{\circ}50'-29^{\circ}N$, $101^{\circ}59'-102^{\circ}16'E$; 2 900-3 100 m), May 8-20 1995, collected by GUO Jian.

Distribution. China, Sichuan, Hailuoguo, Gongga Shan, Gling Mt., Emei.

The Mukuensis group

Quedius (*Microsaurus*) *guoi* **sp. nov.** (Figs. 6-10, 17)

Type material. Holotype male, China, Sichuan, Limekiln, Yele Nature Reserve, Mianming



Figs 6-10. *Quedius* (*Microsaurus*) *guoi* sp. nov. (male). 6. Aedeagus, ventral view. 7. Apical part of underside of paramere. 8. Sternite 8. 9. Tergite 10. 10. Sternite 9.

County, (28° 50′-29° N, 101° 59′-102° 16′ E; 2 900-3 100 m), 8-20 May 1995, collected by GUO Jian. Paratype 1 ♂, same data as in the holotype.

Diagnosis. The species is very similar to *Q. (M.) epytus* from Gansu, but can be recognized by aedeagus with median lobe slightly widened in apical portion, paramere constricted not in the middle, three minute notches in apex, and two sensory tubercle groups on underside of paramere each composed of four to five small black tubercles.

Description. Male. Body black, pubescence yellow to brownish yellow: antennae, maxillary and labial palpi, legs, and apical two segments of abdomen reddish brown to brownish black.

Length: 7.5-8.0 mm.

Head transversely quadrate (ratio 1.28), slightly narrowed posteriad behind eyes, posterior angles obsolete; eyes smaller and less convex, temple longer than length of eyes (ratio 1.22); clypeus impunctate, but with shallow and broad transverse impression; anterior frontal puncture at or against inner margin of eye, posterior frontal puncture distant from posterior inner margin of eye, 3 to 6 setiferous punctures between it and posterior margin of head, temple with a few punctures different in size, microsculpture on surface very fine, distinct, consisting of dense, transverse waves. Antenna not reaching posterior margin of pronotum, segments 1-3 elongate and dilated apicad, segments 4 and 5 about as long as wide, segments 6-10 slightly transverse, last segment longer than wide (ratio 1.76) and bluntly acute at apical portion.

Pronotum somewhat wider than head (ratio 1.18), slightly wider than long (ratio 1.06), widest at the middle and subarcuately narrowed posteriad than anteriorly, anterior angles angulate, posterior rounded, lateral portions not flattened and finely bordered; dorsal rows each with three, sublateral rows with two to four punctures, one setiferous puncture between each dorsal and sublateral row, posterior puncture of sublateral rows situated behind level of large lateral puncture; microsculpture similar to that on head.

Scutellum with fine and dense microsculpture consisting of transverse striae, impunctate.

Elytra subquadrate, longer (ratio 1.22) and wider (ratio 1.27) than pronotum, slightly longer than wide (ratio 1.10), widened posteriad; punctuation and pubescence moderately coarse and dense, somewhat superficial, without microsculpture between

punctures.

Legs with segments 1 to 4 of protarsus strongly dilated.

Abdomen with tergite 7 bearing whitish apical fringe, punctuation of abdominal tergites slightly finer than that on elytra, pubescence similar to that on elytra, transverse microsculpture extremely fine and dense; sternite 8 with four long setae on each side; tergite 10 nearly triangular, with subacute apex; sternite 9 slightly emarginate at apical margin.

Aedeagus with median lobe slightly longer than paramere, nearly symmetrical in the middle, slightly widened in apical portion, apical tooth large. Paramere constricted in basal portion, apex with three minute notches and four apical setae, two lateral setae near each lateral margin below apex; two sensory tubercle groups on underside of paramere, each composed of four to five small black tubercles.

Female: unknown.

Habitat and distribution. Habitat of the species is not clear now, it is known only from the type locality of Sichuan, China.

Etymology. The name of species is a patronymic in honor of the collector, my student Guo Jian.

Quedius (Microsaures) nireus **Smetana**

Smetana, 1995: 240.

Specimens examined. 1 ♂, China, Sichuan, Ruluku, Jiulong County, 3 700 m, coll. HU Yong.

Distribution. China, Gansu, E Xiahe, Sichuan, Luhuo.

The Szechuanus group

Quedius (Microsaurus) liangshanensis **sp. nov.**

(Figs. 11-15, 18)

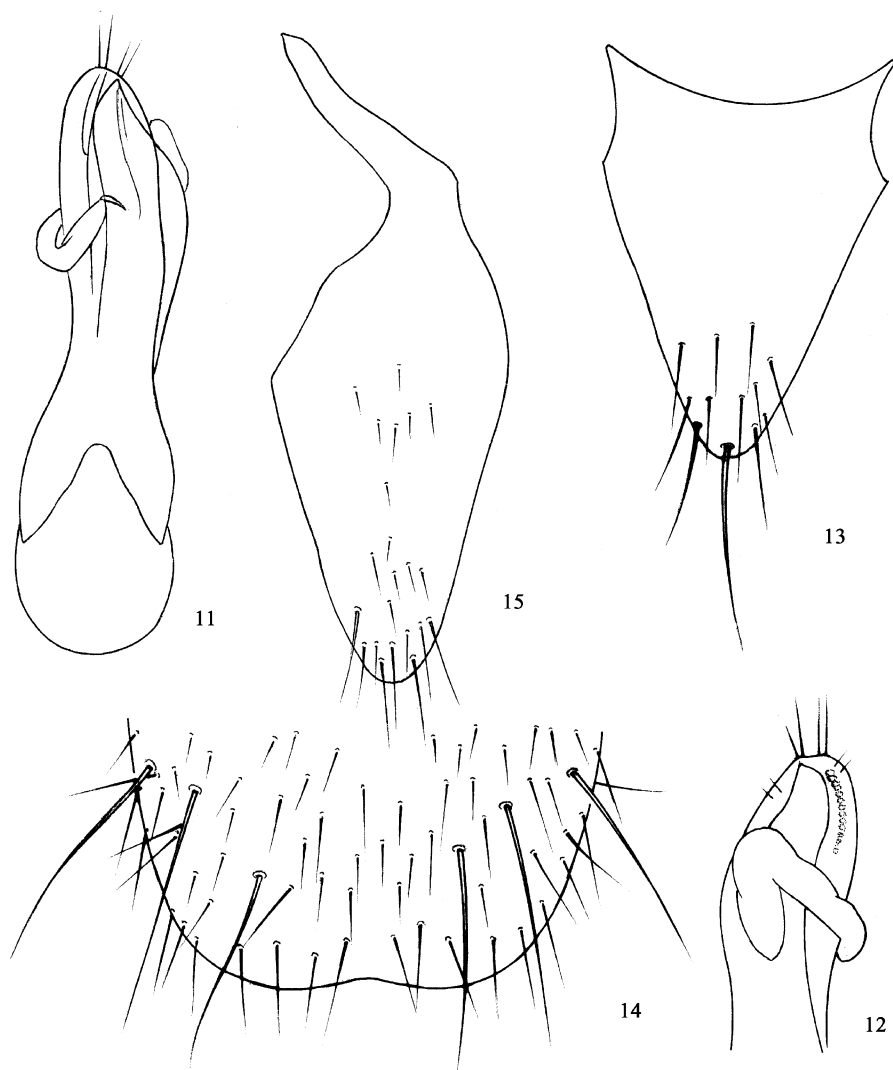
Type material. Holotype male, China, Sichuan, Limekiln, Yele Nature Reserve, Mianning County (28° 50′-29° N, 101° 59′-102° 16′ E; 2 900-3 100 m), 8-20 May 1995, collected by GUO Jian. Paratype 1 ♂, same data as in holotype.

Diagnosis. The species is closest to *Q. (M.) amicorum* Smetana from Yunnan, but can be recognized by larger body, surface of head and pronotum with sparse micropunctulation, male sternite 8 with three long setae on each side, male tergite 10 with one long and a few setae different in size at or near apical margin, and different shape of the apical portion of the median lobe of aedeagus.

Description. Male. Body brownish black to black, pubescence yellow to brownish black; head

black, pronotum, elytra, and abdomen brownish black; all margins of pronotum, posterior margin of elytra and abdominal tergites, apex of abdomen reddish brown; antenna with segments 1-2 reddish

brown, following segments gradually darkened; maxillary and labial palpi, tibia, and tarsus of leg reddish brown.



Figs. 11-15. *Quedius (Microsaurus) liangshanensis* sp. nov. (male). 11. Aedeagus, ventral view. 12. Apical part of aedeagus, dorsal view. 13. Tergite 10. 14. Sternite 8. 15. Sternite 9.

Length: 6.0-6.5 mm.

Head subquadrate, about as long as wide, distinctly narrowed posteriad behind eyes, posterior angles obtuse; eyes moderately large and convex, temples shorter than eyes (ratio 0.77); clypeus impunctate, with two shallow, small round impressions; anterior frontal puncture almost against inner margin of eye, posterior frontal puncture close to posterior inner margin of eye, separated from it by distance equal to diameter of puncture, temporal puncture situated closer to posterior margin of eye than to posterior margin of head, two setiferous punctures between posterior frontal puncture and posterior margin of head, temple with a few punctures different

in size; surface of head with very fine and dense microsculpture consisting of transverse waves, and mingled with sparse micropunctulation. Antenna not reaching posterior margin of pronotum, segments 1-3 elongate and dilated apicad, segments 4-5 about as long as wide, following segments increase gradually in width, last segment longer than wide (ratio 1.41) and bluntly acute at apical portion.

Pronotum slightly wider than long (ratio 1.06), widest at about posterior third and subarcuately narrowed anteriorly than posteriad, anterior angles angulate, posterior rounded, lateral portions not flattened, finely bordered; dorsal and sublateral rows each with three, rare four punctures, posterior

puncture of sublateral rows situated before level of large lateral puncture; microsculpture and micropunctulation similar to those on head.

Scutellum with fine and dense microsculpture consisting of transverse striae, impunctate.

Elytra subquadrate, about as long as wide, longer (ratio 1.19) and wider (ratio 1.25) than pronotum, slightly widened posteriad; punctuation moderately coarse and dense, slightly superficial, without microsculpture between punctures.

Legs with segments 1-4 of protarsus strongly widened.

Abdomen elongated, punctuation and pubescence of abdominal tergites similar to those on elytra, microsculpture of transverse striae exceedingly fine and dense; sternite 8 with three long setae on each side, with shallow arcuate emargination at middle of posterior margin, triangular area in before

emargination smooth; tergite 10 subtriangular, apex narrowly arcuate, with one long and a few setae different in size at or near apical margin; sternite 9 with arcuate apex and numerous setae different in length at apical portion.

Aedeagus with median lobe slightly short, asymmetrical at apical portion. Paramere contracted in middle, distinctly asymmetrical at apical portion, apex somewhat beyond apex of median lobe and with four apical setae, two lateral setae at each lateral margin; sensory tubercles on underside of paramere arranged in two oblique rows.

Female: unknown.

Habitat and distribution. Habitat of the species is not clear now, it is known only from the type locality of Sichuan, China.

Etymology. The specific epithet is derived from locality "Liangshan".

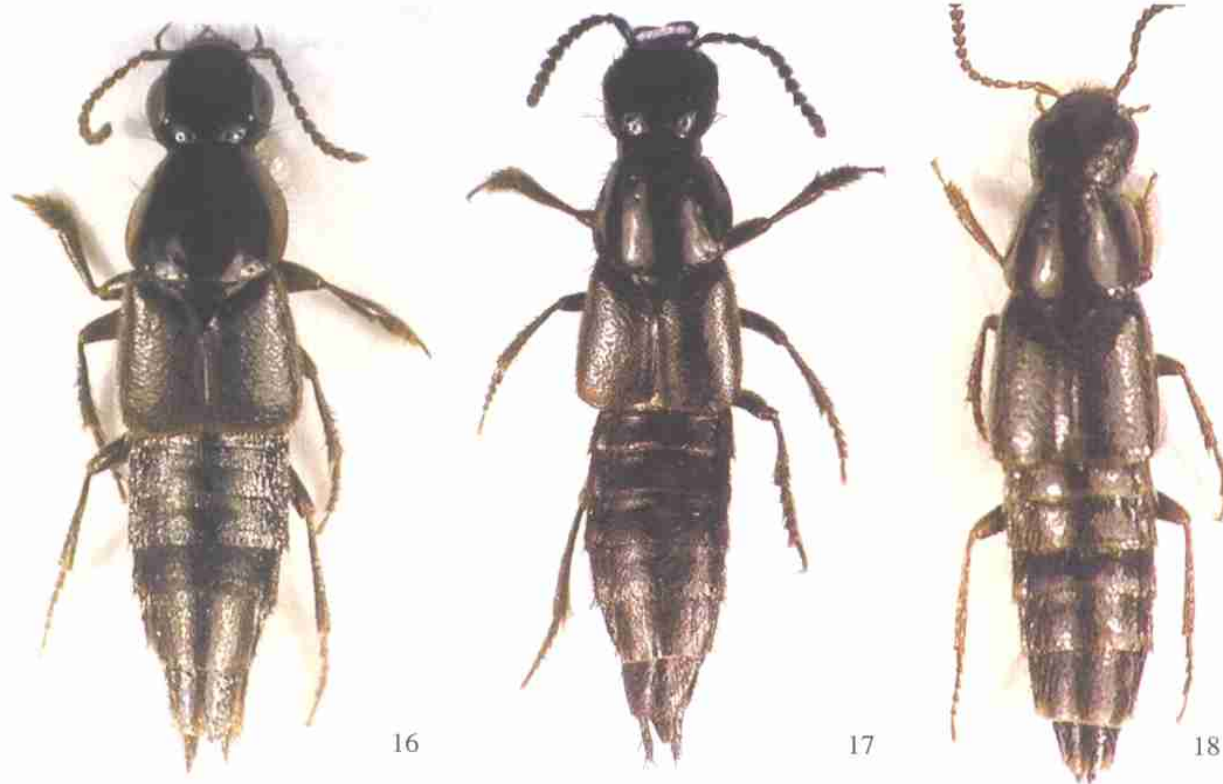


Fig 16. *Quedius (Microsaurus) yeleensis* sp. nov. Fig 17. *Quedius (Microsaurus) guoi* sp. nov. Fig 18. *Quedius (Microsaurus) liangshanensis* sp. nov.

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中国颊脊隐翅虫属三新种 (鞘翅目, 隐翅虫科, 隐翅虫亚科)

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摘 要 记述中国四川冕宁县冶勒自然保护区颊脊隐翅虫属 *Quedius* 3 新种, 其中, 尤隐翅虫群 (The *Euryalus* group) 1 新种, 冶勒尤隐翅虫 *Quedius* (*Microsaurus*) *yeleensis* sp. nov., 穆隐翅虫群 (The *Mukuensis* group) 1 新种, 郭氏穆隐翅虫 *Q.* (*M.*) *guoi* sp. nov., 四川隐翅虫群 (The *Szechuanus* group) 1 新种, 凉山隐翅虫 *Quedius* (*Microsaurus*) *liangshanensis* sp. nov.。冶勒尤隐翅虫与来自甘肃的欧隐翅虫 *Q.* (*M.*) *erythras* Smetana 最接近, 但第 8 腹板每侧各有 4 根长刚毛, 雄性外生殖器侧叶中部窄缩、末

端有宽深凹缘, 侧叶下面凹缘两侧各有 3 或 5 个黑色感觉瘤, 与后者有别。郭氏穆隐翅虫与同样来自甘肃的伊隐翅虫 *Q.* (*M.*) *epytus* 很相似, 但雄性外生殖器中叶端部稍扩大, 侧叶中部不窄缩、末端 3 曲, 侧叶下面的感觉瘤群各由 4 至 5 个小黑瘤组成, 与后者不同。凉山隐翅虫与来自云南的艾隐翅虫 *Q.* (*M.*) *amicorum* Smetana 最接近, 但体较大, 头部和前胸稀布微刻点, 雄性第 8 腹板每侧各有 3 根长刚毛, 第 10 背板在或接近端缘有 1 根长的和少数长短不一的刚毛, 以及雄性外生殖器中叶端部的不同形态, 与后者有别。

关键词 隐翅虫科, 颊脊隐翅虫属, 新种, 新分布, 中国.

中图分类号 Q969.484.4